

Dear reader.

In 2004, Colorado's attention shifted away from being solely concerned about drought conditions within our state to how the larger drought picture was playing out along the entirety of the Colorado River. The drought conditions that have been plaguing Colorado since 2000 were rippling downstream and depleting the large reservoirs that keep the peace between the seven states that rely upon the river. These marvels of engineering that have been protecting us from interstate and inter-basin water conflicts no longer seemed immune from drought.

This past year placed the Colorado River Water Conservation District squarely in the debate about the "Big River" issues that the drought has once again brought to the forefront. When the Colorado River District was formed in 1937, the Colorado General Assembly decreed that the District "should be established and given such powers as may be necessary to safeguard for Colorado, all waters to which the state of Colorado is equitably entitled under the Colorado river compact." We are taking this directive seriously.

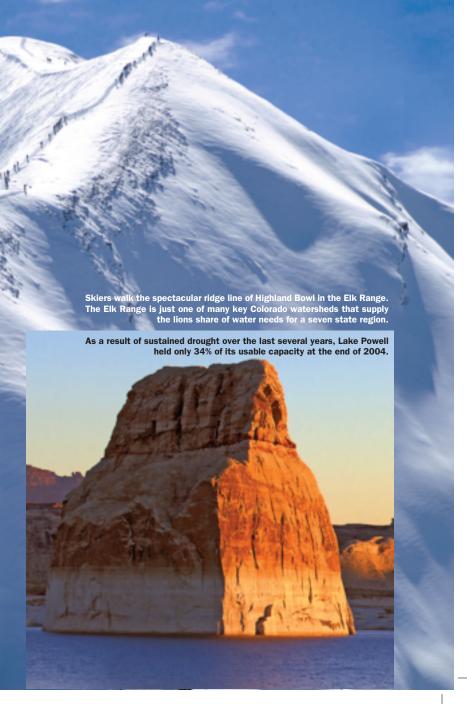
In this Annual Report for 2004, we will explore what the Colorado River District has done this past year with special attention to how the reemergence of our interstate commitments regarding the Colorado River may alter our perceptions of our future water availability. These are indeed interesting times along the Colorado River.

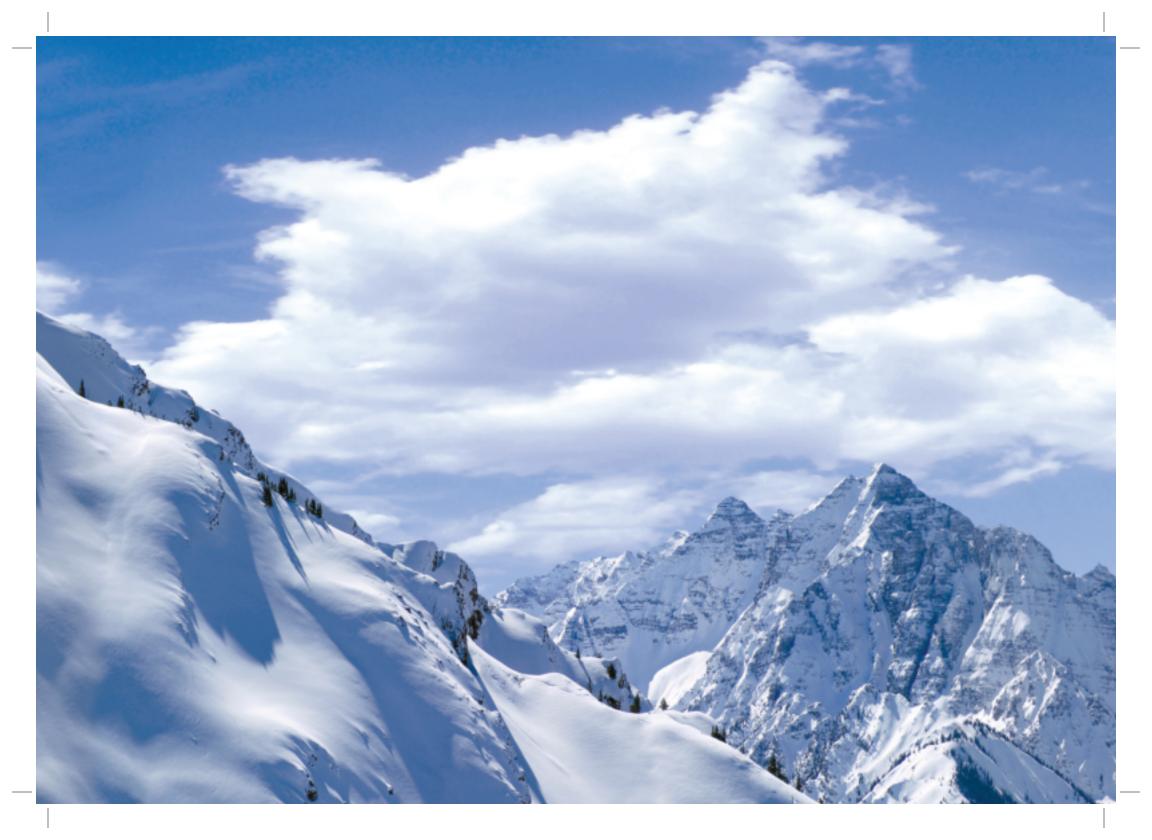
Cordially,

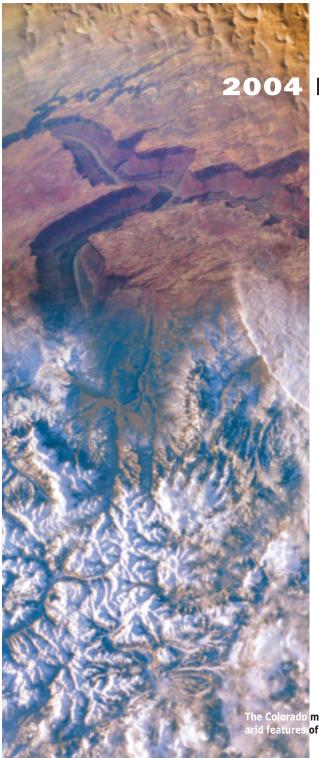
Fgh M. Withis

Stephen M. Mathis
President,
CRWCD Board of Directors









# 2004 Highlights

### **Around the State**

The drought rolls on. While not as epic a drought year as 2002, 2004 failed to provide any significant relief from the drought conditions that have plagued the entire Colorado River Basin since 2000.

Shoshone Hydroelectric Power Plant was offline for much of the spring runoff. Extensive maintenance work at the most senior of mainstem Colorado River calling rights took the call off the river and allowed reservoirs and water users upstream of Glenwood Springs to increase their storage and diversions. But diminished stream flow levels on the Colorado changed water quality and availability and hampered economically important recreation industries. This event graphically demonstrated the value of the Shoshone water right for maintaining stream flow levels in the Upper Colorado River.

**SWSI Report Unveiled.** After a multi-year study, the Statewide Water Supply Initiative issued their report on projected water supply shortfalls forecast by the year 2030 within the seven major river basins in Colorado. No solutions to these shortfalls were identified in this phase of the study.

**RICDs grow in number.** Recreational In-channel Diversion (RICD) water rights filings increased in number throughout Colorado and in particular in the Colorado River Basin. Prominent recent filings are on the Yampa River near Steamboat and on the Gunnison River near Gunnison.

Lake Powell continues to drop. Lake Powell, which functions as the "bank account" that Upper Basin states such as Colorado use to meet their required deliveries to downstream states, continued its dramatic drop in storage levels. By the end of 2004, the reservoir held only 34% of its usable capacity.

**UPCO heads into Phase III** to find solutions. A process to reconcile trans mountain water diversions and in-basin water needs in Summit and Grand Counties moved into its final phase: identifying solutions.

Settlement of the Black Canyon of the Gunnison federal reserved water right challenged. The U.S. Department of the Interior and the State of Colorado settled on quantification of the pending federal reserved water right for the Black Canyon of the Gunnison National Park. Soon after the settlement was reached, a suit was filed against the federal government claiming that the flow was insufficient. The suit is still awaiting judgement.

### **River District Actions**

Elkhead Enlargement Project poised for the starting gun. After 15 years of preparation, permitting, and consensus building, the proposed enlargement of Elkhead Reservoir is slated to begin construction in spring 2005. The project will provide water for increased stream flows for endangered fish as well as for additional human development in the Yampa River basin. By using a cooperative approach, competing interests are joining forces to build this mutually beneficial project. The Colorado River District has been the driving force behind the enlargement.

River District receives concessions in exchange for PSOP support. Holding firm on measures to protect the West Slope, the Colorado River District gained key concessions from agencies in the Arkansas River Basin needing Congressional support for the Preferred Storage Options Plan (PSOP), a study investigating expansion and re-operation of Front Range reservoirs. No new West Slope water will be used to fill the anticipated reservoir space.

**River District designates grant funds for large water supply projects.** The Colorado
River District expanded its grant program
to fund larger water storage projects. The

he Colorado mountain snow pack appears as a finite resource in contrast to the rid features of the southwest United States when viewed from space.

District has been providing grant funding for smaller water projects for almost a decade, but the shortage of available funding to construct larger water development projects prompted the River District to initiate another funding vehicle.

Wolford Mountain Reservoir gives back to the Colorado River. When the Shoshone Hydroelectric Power Plant went down for maintenance during the spring runoff, upstream reservoirs benefitted by storing significant amounts of water. As a result, flows in the Colorado River dropped to record low levels, and the Colorado River District made a discretionary release of 1,000 acre-feet of water into the river to maintain higher flows to benefit the region's recreation economy and prevent fish kills in Gold Medal trout waters.

Contract for additional 5K of Ruedi Reservoir water. The Colorado River District is contracting with the U.S. Bureau of Reclamation for an additional 5,000 acre-feet of water out of Ruedi Reservoir. This water will be available to water users in western Colorado through the Colorado River District's water marketing program either for direct use or for augmentation plans.

### **Legal Matters for 2004**

The Colorado River Water Conservation District is involved with many legal issues that are in negotiation or litigation and pertain to the water interests of the District's Western Colorado constituency. These legal activities include the following issues:

Heeney Slide litigation moves forward. The lawsuit filed by Western Colorado water interests, including the River District, concerning claims of illegal and inequitable operations of Green Mountain Reservoir moved forward in the court system. Motions to dismiss were tossed out and the case to have shortages in Green Mountain Reservoir equitably apportioned is proceeding.

**Blue River Decree.** The Colorado River District continues to work toward resolution of long-standing disputes over interpretations of the Blue River Decree. The Decree consists of three consolidated cases that cover rights and operations of Denver Water's Dillon Reservoir.

**Other areas of legal concern** include the Windy Gap Firming Project, Black Canyon of the Gunnison, Shoshone call reduction and Gunnison's RICD filing, among others.

### **Multi-Party Issues**

Aspinall EIS: The Colorado River District was granted "cooperating agency" status in the Environmental Impact Statement (EIS) process currently underway for operations of the three Gunnison River Basin dams and reservoirs collectively known as the Aspinall Unit. A dark cloud of uncer-

tainty hangs over the EIS process because of a suit brought against the Black Canyon of the Gunnison National Park's federal reserved water rights settlement.

**Summit and Grand County UPCO:** The process to make more water available for in-basin use in counties heavily impacted by transmountain diversions is examining possible new reservoir sites in Summit County and pump-back alternatives in Grand County.

Wolcott Reservoir Study: An initial examination of a pumped-storage reservoir in the Eagle River Basin at Wolcott showed that the project is technically and financially feasible. Whether it is a preferred option for the multiple parties with interests in possibly constructing the reservoir is still a long way from being determined.

Old Dillon Reservoir: The Colorado River District is partnering with the Towns of Dillon and Silverthorne for a 150 acrefoot enlargement of Old Dillon Reservoir. Water resources are extremely tight in this part of the Upper Blue River Basin due to the large number of reservoirs and diversion structures controlling nearly all of the existing surface water in the area.

**Selenium:** The Colorado River District provided matching grant funding to continue a program coordinator position and keep selenium reduction programs going in the Uncompander and Grand Valleys.





# **Grant Program**

A town's municipal water supply needs to be enlarged. A ditch company's diversion structure can't function after it was washed out in a flood. A farmer wants to install an efficient irrigation system, but can't afford the entire cost. Invasive tamarisk trees are literally sucking a stream dry. A leaky irrigation ditch is losing water through its dirt bottom.

All of these are problems in search of a remedy, and they affect people across the West Slope where they feel it most: at their faucet, in their fields and in their wallets.

Seeing a need to solve these and other water-related problems on a local level, the Colorado River Water Conservation District instituted a Grant Program in 1998 to help address localized problems through contributions of matching grants.

The Colorado River District is well-known for its instrumental role in larger water projects that benefit Western Colorado, such as construction of Wolford Mountain Reservoir, the enlargement of Elkhead Reservoir, its partnership in Eagle Park Reservoir and its role in establishing Green Mountain and Ruedi Reservoirs as compensation to the West Slope for the

loss of water through transmountain diversions. The Grant Program fills the niche of providing funding to localized projects where many of the District's constituents feel the benefits on a personal level

Since its inception, the Grant Program has awarded over \$1 million in grants to worthy projects throughout the District's 15-county region. Each of these projects helps the District fulfill its statutory mission by assisting residents to put water to beneficial use, in watershed management, water quality improvements, increasing water use efficiency, eradicating water-robbing tamarisk and other worthy endeavors.

The Monitor Ditch Diversion on the North Fork of the Gunnison River is a good example of a complex problem solved with the help of a CRWCD grant. Stream channel conditions and an aging diversion structure necessitated that "push-up" dams be constructed in the river every year to allow the ditch to get its full water decree. Impacts from bulldozers working in the river to build these dam structures included an over-diversion of water, capture of fish in the canal and inadequate flows for recreational boating and fishing below the diversion structure.

The North Fork River Improvement Association received a \$15,000 grant from the Colorado River District which, in conjunction with other grants and in-kind and cash donations, was used to remedy this situation. A new concrete diversion was constructed, the stream channel was stabilized, vegetation was planted on the stream bank to prevent erosion and stream habitat was improved to create a "global solution" for this troubled stretch of the river.

Now, the Monitor Ditch receives its full water right, higher flows are in the river, fishing has improved, and boaters can once again navigate this river reach.

Shavano Conservation District Portable Drip Irrigation Project The Uncompanyer Valley is a productive agricultural area of Western Colorado capable of growing high-value crops. Soils in the Uncompanyer Valley, however, are high in salts and selenium, which are easily transported from the soil to local waterways by inefficient irrigation practices resulting in impaired water quality. Many farmers use the practice of furrow irrigation to grow crops such as onions, which is cost—effective but results in a higher transport of salt and selenium than more efficient irrigation techniques.

The Shavano Conservation District and local National Resource Conservation Service (NRCS) agents came up with an idea to encourage local farmers to use more efficient irrigation tech-

niques to improve local water quality, reduce sedimentation and use less water. The concept was to purchase a portable drip irrigation system to allow farmers to become acquainted with more technologically advanced irrigation techniques without having to risk a large amount of money on a system that had been untested in this area. A CRWCD grant helped get this project off the ground by purchasing the equipment for a demonstration project.

Now in its third year, the mobile drip irrigation project is a great success. Each year a different farmer uses the equipment to see how well the system works in various soil types and can experiment with different crops. The project has shown that a more efficient irrigation system not only results in lower water use and improved water quality, but the crop yield is larger and the quality of the produce coming to market is higher.

"We're very pleased with the system and the results we're getting," said Fred Miller, Irrigation Water Management Specialist at the NRCS and Shavano Conservation District.

"The impact of growers adopting drip irrigation in the Valley would be huge," noted project applicant John Murray. "Increasing profits for local farmers is also a concern. If they become more competitive, more of them may be able to stay in farming. This is turn will keep open spaces from being converted into subdivi-

sions and minifarms."On being able to secure a Colorado River District grant to help achieve the drip irrigation system's successes, Fred Miller said, "We were fortunate. I suppose there's a lot of money out there, but it's hard to find it."

Many federal grants can come with cumbersome stipulations and involve a great deal of paperwork. "We've been very pleased with what this grant's done for us and what it's done for the producers, said Miller."

The Colorado River Water Conservation District's grant program operates on an annual cycle and accepts applications each year from November through the end of January. More information on the grant program can be found on the District's website at www.crwcd.org/grantprogram. To serve as a funding source for larger water projects, a second arm of the grant program is being implemented to provide larger amounts of funding for projects that will have an even greater impact on development of critical, new water supplies and water storage projects.



A 2004 CRWCD grant funded this portable drip irrigation system in Montrose County.

The Grant Program improves water quality within the district by encouraging local farmers to use more efficient irrigation techniques to improve water quality, educe sedimentation and use less water.





Five years of sustained drought in the Colorado River Basin have pushed the Colorado River to its limits. Despite 80 years of reservoir construction that engineered considerable reliability into the Colorado River's capacity to deliver water, the river is still not immune from drought.

The lasting image coming from this most recent drought period is the increasingly shallow Lake Powell, with its "bathtub ring" exposed, reemerging slot canyons and ever-lengthening boat ramps chasing after water. However, Lake Powell is fulfilling its primary function as a storage vessel to meet the water delivery requirements to the Lower Basin states of California, Nevada and Arizona as dictated by the Colorado River Compact.

The current drought has resurrected a number of questions that lay fallow during the previous two wet decades. What will happen if Lake Powell cannot provide the Upper Basin's water obligations to downstream states? What conditions will prompt the U.S. Department of the Interior to declare a shortage on the Colorado River? How and when will we resolve numerous other details about the Law of the River that remain in dispute?

Ruedi Reservoir shows the effect of drought.

The potential implications of these "Big River" issues are troubling for Coloradans, and the Colorado River District is focusing a great deal of attention on these interstate water questions. In 1937, the Colorado General Assembly charged the Colorado River District in its enabling legislation to "safeguard for Colorado, all waters to which the state of Colorado is equitably entitled under the Colorado river compact." Colorado River District staff, in particular General Manager Eric Kuhn, have been touring the state of Colorado, and other basin states as well, to highlight the need for settling disputed interstate river management issues cooperatively. Colorado and other basin states require greater certainty and equity to deal with looming water shortages should drought conditions persist. Texts of these presentations are available on the Colorado River District's website at www.crwcd.org.

### The Issues:

**Quantity** When the Colorado River Compact was hammered-out in 1922, the negotiators estimated the average flow of the Colorado River at Lee Ferry was 17.3 million acre-feet (MAF) of water. The Compact allocated 16 MAF to the seven states along the Colorado River. However, since the Compact was signed, we have come to recognize that the river's average annual production is in the range of 13.5 to 15 MAF, as much as 4 MAF less than expected.

**Mexico** The Compact anticipated that Mexico would have interests in the Colorado River, yet left the matter to the federal government to work out an acceptable treaty. Figuring on at least 1.5

MAF of surplus flow after the seven U.S. states had their fill, the Compact allocates Mexico's share to come from this surplus. Any shortage to Mexico remaining after use of the "surplus" would be split by the Upper and Lower Basin segments in the U.S. In 1944, the U.S. and Mexico negotiated an annual delivery of 1.5 MAF, with exception for surplus years and severe drought. Numerous questions remain about where Mexico's share comes from. The role of Lower Basin tributary rivers, such as the Gila, in fulfilling the Mexican treaty requirements, is still in dispute. Lake Powell has been operated to release 0.75 MAF for Mexico even when Lower Basin states have taken advantage of surplus water deliveries. The Mexican treaty remains a loose end in need of being tied-up.

Article III(a) vs. III(d) An inherent conflict lies within the Colorado River Compact. Article III(a) provides an allocation from the Colorado River of 7.5 MAF each to the Upper (Colorado, Utah, New Mexico, Wyoming) and Lower Basins (California, Nevada, Arizona). Article III(d) requires the Upper Basin to not deplete the flow of the river to less than 75 MAF over consecutive 10-year periods. The question arises, which factor is controlling? Is the Upper Basin guaranteed an equal share of the river or does the delivery of a set amount of water to the Lower Basin control?

**Gila River** The vast majority of the flow of the Colorado River is produced in the headwater areas of the Upper Basin. However, there are significant tributaries on the lower half of the river, notably the Gila and Verde Rivers in Arizona. The Compact entitles the Lower Basin to an extra 1

MAF of water from Lower Basin tributary rivers. But, Arizona has been using over 2 MAF from the Gila River alone. Should the Gila River and other lower basin tributaries be used to meet the 1.5 MAF obligation to Mexico?

How much water does Colorado get? It depends upon assumptions. In a perfect world, Colorado should receive 51.25% of the Upper Basin's 7.5 MAF allocation, or just over 3.8 MAF. Given that the Colorado River's long-term average flow is closer to 13.5MAF, Colorado may only have less than 3.1 MAF available for development. Colorado has been depleting 2.5-2.8 MAF per year from the Colorado River system, leaving us less than 500,000 acre-feet for future development if past hydrologic trends persist.

Will the past predict our future? Climate change is a hot button issue at the moment, but

looking back over the centuries, it appears that recent modern times (the past 100 years) have been anomalously wet. Our current drought period may very well be a return to the long-term, drier norm. If this is the case, we've built a house of cards based upon assumptions that this abnormally wet period will continue, and it may come falling down in the face of a drier reality. Colorado could already be at its theoretical limit for development of Colorado River water, if one subscribes to a drier forecast for our future.

Significant negotiations will be needed to resolve these pressing questions. The Colorado River District will provide counsel to the State of Colorado in its discussions with the other Basin states and federal agencies to come to a fair settlement of these important issues.





# **Elkhead Enlargement**

The Elkhead Enlargement Project brings together would-be adversaries to forge a mutually-beneficial solution.

After 15 years of consensus-building, planning, negotiations and lengthy permitting processes, the Colorado River Water Conservation District is moving forward on the enlargement of Elkhead Reservoir. The reservoir, located on the border of Moffat and Routt Counties, will serve the dual role of providing streamflows for the recovery of endangered fish species in the Yampa River Basin and as a storage vessel for water for continued human development in the region. The Elkhead Enlargement Project brings together would-be adversaries to forge a mutually beneficial solution for the water needs of both sides.

The Elkhead Enlargement will add nearly 12,000 acre-feet of storage to the reservoir, practically doubling its former size. By bringing together a diverse consortium of interests to participate in the project, the enlargement of Elkhead Reservoir will avoid the spiteful conflicts that have emerged between human water users and advocates for endangered fish spe-

cies in other areas of the arid west. The battle over the silvery minnow on the Rio Grande River in New Mexico and the angry dispute in Oregon's Klamath River Basin are testament to the rancor that occurs when competing interests for water cannot reach a peaceful resolution



The Upper Colorado River Endangered Fish Recovery Program is a key participant in the Elkhead project. The Recovery Program is a working group of federal, state and regional entities cooperating to recover four endangered fish species in the Colorado River to self-sustaining levels, while also allowing for continued human development of the basin's water resources. As the lead agency on the Elkhead enlargement, the Colorado River District has partnered with the Recovery Program, the City of Craig, the Craig Station Power Plant, Colora-

do State Parks, Colorado Water Conservation Board and the Colorado Division of Wildlife on the project.

The enlargement will raise the crest of the dam by 20 feet. Because the reservoir is situated in a deep basin, only a modest area of additional land will be inundated. The construction period is expected to last two years, with the reservoir reopening for recreational use and making its first water releases in 2007.

Elkhead Reservoir is a significant recreational resource in northwest Colorado. During the enlargement process, the reservoir's recreational assets will be improved with new and expanded boat access, enlarged and modernized campsites, improved swimming areas and new hiking trails. The reservoir's prized fishery will be maintained in a conservation pool during the construction period and additional non-native sport fish will be placed in Elkhead after their removal from the Yampa River.

The Elkhead Enlargement Project is yet another example of the Colorado River District turning conflict into opportunity. The Colorado River District, and its predecessor the Western Colorado Protective Association, pioneered the concept of mitigation for out-of-basin water diversions, so water producing areas can be protected from the impacts of diversion projects that benefit water-short areas. Wolford Mountain Reservoir near Kremmling is a result of the Colorado River District forging a partnership with Front Range water providers to create a West Slope reservoir that provides water for both sides of the Divide.



## Legislation

The Colorado River District remained active, both in Denver and Washington, D.C. Thankfully, the Colorado General Assembly's 2004 session was less acrimonious and less blatantly partisan than the previous year. Numerous water bills were addressed, with most passing.

#### **COLORADO WATER BILLS of Note:**

**SB 32:** Senator Isgar (D-Hesperus) again succeeded in passing a bill to clarify the 100-year old statutory provisions covering ag-to-ag water loans. This year's bill was more focused and was enacted into law upon the Governor's signature.

**SB 232:** Senator Dyer's (R-Littleton) contentious bill to create a Front Range Water Conservation District across two basins in the southern metro area died in the final days of the session. The River District will continue working with our South Metro partners to develop an acceptable alternative, which may or may not require legislation.

**HB 1073:** Beginning two years ago, Representative Smith (R-Grand Junction) worked with the River District to address concerns, raised principally by West Slope attorneys and the River District, regarding his earlier legislation from 2001 concerning land owner notification. HB 04-1073 success-

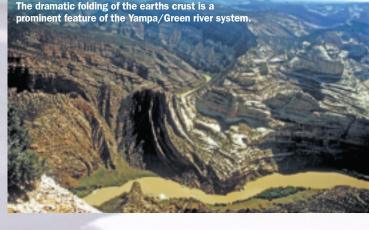
fully addressed these concerns and will result in reduced costs for diligence filings and less public alarm in diligence proceedings for existing conditional water rights.

**HB 1256:** Representative Hodge (D-Brighton) sponsored this bill to add flexibility and encourage interruptible supply agreements between agricultural water right owners and municipalities seeking additional supplies. This bill removed the restriction that an interruptible supply agreement requires the Governor to declare a drought emergency. Interruptible supply agreements represent a constructive alternative to permanent irrigated land dry-up or additional transmountain water diversions.

**HB 1365:** Representative Harvey (R-Highlands Ranch) carried this water conservation bill that the Colorado Department of

Natural Resources drafted. This bill expands the purview and authority of the Office of Water Conservation within the Colorado Water Conservation Board. It adds certain conservation and drought preparation requirements to municipalities' water conservation plans.

HB 1402: This bill, sponsored by Representative Brad Young (R-Lamar), repealed last year's imposition of annual fees on perfected water rights. Although these fees were widely maligned from their inception, Senator Taylor (R-Steamboat Springs) and Russell George (DNR Executive Director) were instrumental in securing not only a repeal of the fee but also a refund of any fees paid. The revenues lost by this repeal will be offset by a one-time appropriation from the severance tax operational account.



#### FEDERAL LEGISLATION:

While the River District followed federal legislation concerning tamarisk removal, abandoned mines remediation, Endangered Species Act amendments, and selenium control, the majority of our efforts focused on opposing legislation amending the operating rules of the federal Fryingpan-Arkansas Project unless and until West Slope concerns were addressed. We were successful in blocking legislation introduced during the lame duck (post-election) session of Congress and favorably positioning the West Slope for a positive outcome to on-going negotiations regarding future project operations.

#### **ELECTIONS:**

The Fall elections surprised even the most seasoned political observers. Attorney General Ken Salazar defeated beer scion Pete Coors to become Colorado's junior Senator, and Ken's older brother, John Salazar, defeated former DNR and Club 20 director, Greg Walcher, to represent Colorado's 3rd Congressional District replacing Scott McInnis. Additionally, for the first time since 1962, Democrats will assume the majority in both the Colorado House and Senate in 2005.







Wade Collins Saguache County



Warner Dewey Hinsdale County



T. Wright Dickenson Moffat County



Thomas S. "Tom" Dunlo Pitkin County



Bill Ferguson Ouray County



Kathryn Hall Mesa County



J. Richard "Dick" Hunt Garfield County



Peter A. "Pete" Kasper Delta County



Thomas A. "Tom" Long Summit County



Stephen M. Mathis President Montrose County



James L. Newberry Grand County



Thomas R. "Tom" Sharp Routt County



David H. Smith Rio Blanco County



Tom C. Stone Eagle County



William S. "Bill" Trampo Vice President Gunnison County

# **CRWCD Board of Directors**

The Colorado River Water Conservation District is governed by a Board of Directors, with an appointed representative from each of the 15 counties within the District. All policies, resolutions, significant expenditures, and major actions of the Colorado River District must be approved by the Board. Board members are appointed to three-year terms by their respective county's Board of County Commissioners. Each year one-third of the seats on the Board are up for appointment.



Waiting for water on the Grand Valley Project, Colorado.

The home of B. B. Freeman and family, who had been waiting for water for six years. c1913



completely dependent upon rain and

Colorado is a semi-arid state that is

Irrigated pasture.

snow for its surface water supply.

Prior to the construction of water

projects, much of the state was at

the mercy of the skies.



### **Financials**

The Colorado River Water Conservation District has two distinct financial budgets for conducting its affairs. **The General Fund** is derived primarily from property tax revenues. The District's mill levy on real property within its 15-county area is presently 0.252 mills, or roughly \$4.60 per year on a home valued at \$200,000. The mill levy is subject to Colorado's constitutional limits on growth in government revenues. As a result, the

mill levy rate has been steadily decreasing. The General Fund provides money to be used in the day-to-day business of the District such as engineering, legal, public affairs, public education and administration.

**The Enterprise Fund** derives its income solely through business transactions, such as water leases and other water marketing programs. Water is marketed to constituents within the District for beneficial uses such as municipal

uses, agricultural irrigation and as replacement water for augmentation plans. The Enterprise Fund receives no tax revenues and is therefore not subject to the same constitutional constraints as the General Fund. The Enterprise Fund is used to construct water development and storage projects for the benefit of the nearly half-million constituents residing within the District and to purchase stored water to fulfill anticipated future demands.

